

ABSTRACT OF THE DISCLOSURE

Wavefront aberration measurements measured in response to design parameter changes in a contact lens, for example, are used to design and prescribe contact lenses offering improved vision quality. *In-situ* optical performance of trial lenses provides real-time, objectively determined data as a design model for the lenses. Lenses designed by the inventive process are described as well as a method for using an aberrometer to design and prescribe contact lenses.